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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,610

06/05/2006

Tomoaki Masuda

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12/17/2009

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EXAMINER

BURKHART, ELIZABETH A

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

12/17/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,610	<b>Applicant(s)</b> MASUDA ET AL.	
	<b>Examiner</b> Elizabeth Burkhart	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1-12 are pending in the application. Claims 8-12 have been withdrawn from consideration as being drawn to a nonelected invention. The amendment filed 9/3/2009 has been entered and carefully considered.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kameyama et al (WO 2004/013667) in view of Tanaka et al ('906) and Sugino et al (US 2003/0137732).

Note: Kameyama (US 2005/0271873) is being used as a translation of WO 2004/013667).

Kameyama et al discloses a method of fabricating a polarizing film by uniaxially stretching a resin film such as a polyvinyl alcohol-based film in a fabrication process including a swelling step and a dyeing step following the swelling step (Abstract).

Kameyama does not disclose at least two or more swelling baths in sequence prior to the dyeing step, wherein the temperature of the first bath (Nth) is higher than the temperature of the second bath (N+Mth) by 3°C or more.

Tanaka discloses fabricating a polarizing film by uniaxially stretching a polyvinyl alcohol-based film in a process including a swelling step, a wet-stretching step, and a

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dyeing step. The film is immersed in a first swelling bath (15-35°C) and then stretched in a second swelling bath (15-60°C). After the stretching, the film is immersed in a dyeing bath (Abstract, Col. 5, lines 1-20 and 55-60). Tanaka further discloses that if the stretching temperature is too low, it is impossible to achieve a sufficient stretch ratio.

Sugino discloses that the stretch ratio may be adjusted appropriately corresponding to the temperature of the bath [0047].

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to incorporate the second swelling bath (stretching bath) of Tanaka prior to the dyeing step in the process of Kameyama since it was suitable to perform stretching prior to, during, or after drying, and adjust the temperature of the stretching bath, including temperatures 3°C or more lower than the first swelling bath as claimed, in order to achieve a sufficient stretch ratio as suggested by Sugino.

Regarding Claims 3-5, Tanaka discloses temperatures for the swelling bath and stretching bath as 15-35°C, 15-60°C, respectively (Col. 5, lines 1-7). Kameyama discloses a temperature for the dyeing bath as 20-70°C [0059]. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time of invention by applicant if the overlapping portion of the temperature ranges disclosed by Tanaka and Kameyama were selected because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Wortheim* 191 USPQ 90.

Regarding Claims 6 and 7, Kameyama discloses immersing the film in the swelling baths for 50 seconds or less [0054], [0161] and that the film has a

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saponification degree of 95% or more and polymerization degree of 2000 or more [0044].

Thus, claims 1-7 would have been obvious within the meaning of 35 USC 103 over the combined teachings of Kameyama, Tanaka, and Sugino.

### ***Response to Arguments***

3. Applicant's arguments, see p. 2, par. 3, filed 9/3/2009, with respect to the rejection(s) of claim(s) 1-7 under 35 U.S.C. 103 have been fully considered and are persuasive. Applicant argues that Kameyama does not disclose the use of multiple swelling baths and therefore, one of ordinary skill in the art would not have optimized temperatures of multiple swelling baths based on Kameyama. The examiner agrees. While Kameyama discloses a crosslinking bath after the dyeing step, Kameyama only discloses a single swelling bath prior to the dyeing step as claimed. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tanaka and Sugino (see rejection above).

Applicant argues that changing the bath temperature of consecutive baths by 3°C or more as claimed results in unexpectedly improved polarizing films having low color irregularities. Kameyama discloses that the lower the stretch ratio, the further dyeing unevenness is reduced [0053] and Sugino discloses that the stretch ratio may be adjusted by adjusting the bath temperature [0047]. Thus, one of ordinary skill would have reasonably expected to reduce dyeing unevenness (i.e. color irregularities) by adjusting the bath temperature to reduce the stretch ratio.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Burkhart whose telephone number is (571)272-6647. The examiner can normally be reached on M-Th 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth Burkhart/  
Examiner, Art Unit 1792

/Timothy H Meeks/  
Supervisory Patent Examiner, Art Unit 1792